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CENTRAL FAX CENTER****JUN 05 2007**

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**DESCRIPTION****Invention title.-**

A SYSTEM FOR PROJECTING IMAGES ON INSCRIBED POLYHEDRONS  
HAVING POLARIZABLE FACES AND A PROJECTION PROCEDURE

**5 Background to the previous technical situation.-**

It is unknown so far as background is concerned about the previous technical situation of a device with an image projector situated within the smaller polyhedron of two or more inscribed hollow polyhedrons, each one being contained within another larger one but not being encapsulated with contacting faces, since it is essential that there is  
10 enough distance between their faces so that an external spectator could appreciate the three-dimensional or space effect that is proposed.

The smaller polyhedron is contained within a bigger one that circumscribes it and this one successively within the next, all of them could be either concentric, in which case they would have the same centre, or could be on the same base or each one could have a  
15 different base at different levels.

The polyhedrons consist essentially of faces of translucent glass polarizable to transparent, making it possible to project images in a successive way on every polyhedron, only the inner one or any of the outer ones when the glass polarization is activated, since on becoming transparent it modifies the glass screen where the image is  
20 projected by retro projection with a three-dimensional effect and with a demonstrative, advertising or exhibition purpose.

**Disclosure of the invention.-**

The proposed invention is a retro projection procedure and an appropriate device for its working, based on the retro projection of images on concentric or successive screens,  
25 which are activated successively in order to fix the projected image onto every screen.

The screens consist of two sheets of glass or another transparent material with a liquid between both sheets which is liable to conversion to transparent or translucent states by electrical polarization or depolarisation, so that the image stops being reflected on the screen when it is transparent and on the contrary the image is reflected on the one that is

5 in translucent state.

This produces the effect of moving the space plane where the image is formed, approaching or moving away from the spectator and increasing or decreasing its size.

As a result the procedure is a system of retro projection images associated to the next technical characteristics:

10 1°.-The source of images will be placed inside the inner polyhedron of two or more hollow ones preferably regular with the same shape although irregular or different shaped polyhedrons could be used if they are provided with lenses, mirrors or auxiliary projectors for redirection of images situated on the faces of each polyhedron that is not used as a screen so that the auxiliary means are made invisible to the spectator.

15 2°.- The polyhedrons will be disposed in a way that each one is interior or inscribed in respect of the next one that circumscribes it . with separation between faces so that all polyhedron faces used as screens are parallel and totally or partially inscribed inside the luminic angle of image projection.

In certain cases though, the inscribed polyhedrons could be conjugated or have their

20 faces in angle with respect to those of the circumscribed polyhedron.

In which case, they will have to be associated to a complex system of lenses, mirrors or other optical means which redirect the images by reflection to the next polyhedron or have auxiliary independent projectors.

The essential content of the new invention is the visual effect that is caused to the

25 spectator by a multiscreen device in which each screen inscribed inside another bigger